

**REMARKS**

Applicants respectfully request reconsideration of this application in view of the foregoing amendments and the following remarks.

A. Introductory Remarks

Upon entry of the foregoing amendments, claims 17-18 and 29-42 will be pending in the application. Claims 17-18 are presently being amended. Claims 29-42 are presently being added. No claims are presently being canceled. None of the amendments or new claims introduces matter into the application - the following table identifies exemplary support in the specification for each claim amendment and new claim.

<b>Claim</b>	<b>Exemplary Support (Referenced ¶¶ of published app. No. 2004/0265852)</b>
17	Paragraphs 0015, 0051, 0038, 0038, 0040
18	Paragraph 0015
29-30 & 37-38	Paragraph 0022
31-32 & 39-40	Paragraph 0023
33-34 & 41-42	Paragraph 0024
35	Paragraph 0048
36	Paragraph 0138

B. The Subject Matter of Claim 17 is Patentable Subject Matter

Claim 17 was rejected under 35 U.S.C. § 101 for allegedly failing to distinguish over naturally occurring antibodies, and therefore being directed to non-statutory subject matter.

Without acquiescing to the propriety of the rejection, Applicants have amended claim 17 to recite that the antibody or antibody fragment is “isolated, enriched or purified.” The amendment emphasizes the “hand of man” in the invention, and renders the rejection moot.

Accordingly, Applicants respectfully request withdrawal of the rejection based on alleged non-statutory subject matter.

C. Claims 17-18 Are Definite

Claims 17-18 were rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite because the terms AUR1 and AUR2 are “laboratory designations” that are not commonly understood in the art.

Applicants respectfully disagree with the rejection. The application specifically defines “AUR1 and/or AUR2 polypeptide” to mean “25 . . . or more contiguous amino acids set forth in the full length amino acid sequence of SEQ ID NO: 3 or SEQ ID NO: 4, or a functional derivative thereof as described herein.” See US 2004/0265852, ¶ 15. For purposes of this application, therefore, the meaning of AUR1 and AUR2 polypeptides is explicit. Patentees are free to assign their own definitions to terms, and because Applicants have done so in this case, it is irrelevant that other scientists might inconsistently define AUR1 and AUR2 polypeptides.

Nevertheless, to speed prosecution of the application, Applicants have included references to SEQ ID NO: 3 and SEQ ID NO: 4 in claims 17-18. The references make it explicit within the claims that AUR1 and/or AUR2 polypeptides have a structural relationship to SEQ ID NO: 3 and SEQ ID NO: 4.

Because the claim recitations of specific polypeptide sequences renders the indefiniteness rejection moot, Applicants respectfully request withdrawal of that rejection.

D. The Written Description Supports Claims 17-18

Claims 17-18 were rejected under 35 U.S.C. § 112, first paragraph, because the written description of the invention allegedly does not evidence possession of the invention. The Office stated that “[t]he written description in this case only sets forth an isolated antibody or antibody fragment thereof having specific binding affinity to a polypeptide comprising SEQ ID NO: 3 or SEQ ID NO: 4 and a hybridoma which produces an antibody having specific binding affinity to SEQ ID NO: 3 or SEQ ID NO: 4.” Such a description

allegedly “is not commensurate in scope with the claims, which read on antibodies that bind to AUR1 and/or AUR2 or a hybridoma which produces an antibody having specific binding affinity to an AUR1 and/or AUR2 polypeptide.”

Although applicants do not acquiesce in the rejection, this rejection also is moot in view of the amendments to claims 17-18. The amendments explicitly refer to SEQ ID NO: 3 and SEQ ID NO: 4, and therefore clarify that the scope of the claims conforms to the written description of AUR1 and AUR2 polypeptides encoded by those sequences.

Example 4 of the specification, in which Applicants raised AUR1- and AUR2-specific antibodies, further demonstrates possession of the claimed invention. Example 5 of the specification demonstrates that such antibodies were useful in determining that myelin basic protein serves as a substrate for AUR1 and AUR2 kinases. Example 9 of the specification demonstrates that such antibodies were useful in determining that colorectal carcinomas overexpress AUR2.

Because the specification demonstrates possession of the claimed invention, Applicants respectfully request withdrawal of the written description rejection.

E. The Claims Are Patentable over the Cited Art

Claims 17-18 were rejected under 35 U.S.C. § 103(a) for allegedly being obvious over Niwa et al., Gene, 169: 197-201 (1996) (“Niwa”) and Campbell, Lab. Tech. Biochem. Mol. Biol., 13: 1-32 (1984) (“Campbell”). According to the Office, Niwa describes a sequence that is an 83.3% match to SEQ ID NO: 3 and which contains spans of more than 40 amino acids that are a 100% match to SEQ ID NO: 3. Campbell allegedly teaches that it is customary for any group working on a macromolecule to make monoclonal antibodies to the macromolecule. Combining these two references, the Office alleges that antibodies having specific binding affinity for AUR1 or AUR2 polypeptides are obvious. Applicants respectfully traverse the rejection.

The combination of Niwa and Campbell neither teaches nor suggests the claimed invention. Although Niwa contains a sequence that is an 83.3% match to SEQ ID NO: 3, that

sequence still differs significantly from SEQ ID NO: 3. Due to the differences, an antibody raised against Niwa's sequence would not have "specific binding affinity" for a polypeptide encoded by SEQ ID NO: 3. As defined in the specification, "specific binding affinity" means "that the antibody binds to the target (AUR1 and/or AUR2) polypeptide with greater affinity than it binds to other polypeptides under specified conditions." See US 2004/0265852, ¶ 46.

Neither Niwa nor Campbell contains any teachings that bridge the differences between the sequence of Niwa and SEQ ID NO: 3. For example, there is no suggestion that the Niwa sequence should be modified along the lines of SEQ ID NO: 3 and there is no motivation to do so. Accordingly, the combined references lack the required motivation or suggestion to make the claimed antibodies having specific binding affinity for a polypeptide encoded by SEQ ID NO: 3. Even if such a suggestion or motivation did exist, the combined references lack any guidance for doing so. In such a vacuum, the likelihood of success for making the claimed invention would have been zero.

As the cited references neither teach nor suggest the claimed invention, and as they provide no guidance that would create a likelihood for successfully practicing the claimed invention, Applicants respectfully request withdrawal of the obviousness rejection.

F. Concluding Remarks

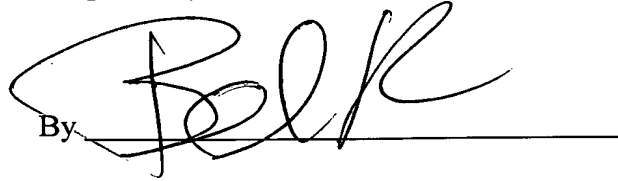
Applicants believe that this application is in condition for allowance, and request favorable reconsideration of it. If the Examiner believes that an interview would help to advance prosecution, he is invited to contact the undersigned attorney by telephone.

The Commissioner is hereby authorized to charge any additional fees that may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extensions under 37 C.F.R. §1.136 and authorize payment of any extension fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 4 October 2005

By

A handwritten signature in black ink, appearing to read 'B. Burrous', written over a horizontal line.

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